MIPP Project Status & Issues

Peter Barnes

Physics and Advanced Technology

Lawrence Livermore National Laboratory

Fermilab, 16 February 2002

Items

- Collaboration Agreement (Bylaws)
- Counting House

- Schedule
- Livermore–Fermilab MOU
- Funding
- Systems Contacts/Open Positions
- Meetings/Conference Calls

- Major Change to Installation Sequence Under Discussion
- Short Term Issues
- Long Term Issues

Collaboration Agreement (Bylaws)

- **Mishra/Barnes Proposal**
  - **Will post and circulate**
- **Proposed Approval Process**
  - **Send comments to Mishra/Barnes**
  - **We will circulate revised proposal before next meeting**
  - **Discussion and vote at next meeting**

Counting House

- **HyperCP Has Vacated the PortaKamps**
- **Still Some Trash Removal and Cleanup**
- **North End Likely to Get New Carpet**

- **Currently EXP key - Should We Change It?**

  Maybe Not - Wait for Confirmation Before Ordering Keys

- **Suitable for E907 Storage**
  - ***e.g.*, TPC Spares**

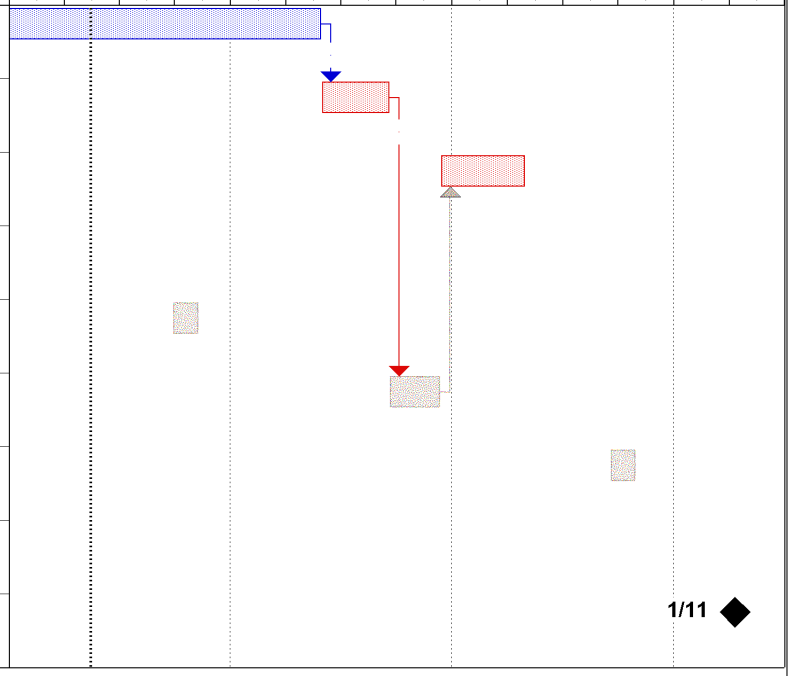
Schedule

21

- **Hard End Date: NuMI CD-4 Start Operations 1/11/05**

E907 Strawman Running Schedule 2/12/02

Task Name	Start	Finish
E907 Construction	10/1/01	2/28/03
E907 Run I	3/3/03	6/20/03
E907 Run II	9/15/03	1/30/04
FY02 Summer Shutdown ?	7/1/02	8/9/02
FY03 Summer Shutdown ?	6/23/03	9/12/03
FY04 Shutdown	6/21/04	7/30/04
NuMI CD-4 Start Operations	1/11/05	1/11/05



Funding

- **Fermilab**
  - **BD Beamline ($321K in FY02)**
  - **PPD Experiment Engineering ($126K in FY02)**
  - **PPD Project Management (half of Leon Beverly)**
- **Livermore**
  - **Multiyear ICO (simplifies the process next year)**
  - **FY02 Livermore Group Funding as Expected**
  - **FY02 ICO in Livermore Procurement ($455K in FY02)**
    - ***Behind Project for Governor Davis***
- **Stockpile Stewardship Academic Alliances Proposals**
  - **4 Pre-Proposals Submitted (Houston, Colorado, Michigan, N. Carolina)**
  - **All 4 Invited to Submit Full Proposals (Due 1 April 2002)**
- **South Carolina EPSCORE**
- **NSF (Houston) - response end of March**
- **DOE NP (Colorado, Columbia)**

Livermore–Fermilab MOU

- **Generally Limited to Use of Livermore Funds at Fermilab**
- **Also Lists Activities Essential for E907 (Beams)**
- **Details Our Understanding and Intent With Regard To:**
  - **Major Areas of Responsibility**
  - **Fermilab Intent to Deliver Sufficient Protons to Accomplish E907 Plan**
  - **Management and Reporting**
  - **Recharge Rates**

⇒ **Livermore Will Pay Fully Burdened Rates (Full Overhead)**

⇒ **Fermilab PPD Will Contribute 250 Days Engineering Time**

  - ***Offsets the Overhead on the Livermore Funds***

⇒ **Use Full Cost Accounting Everywhere**

  - **To Put Livermore & Fermilab Contributions on Equal Footing**

Systems Contacts / Open Positions

- **Contact List on E907 Web**
  - **email, phone #s**

System	Contact
Upstream Beamline	<vacant> (leader) Tom Kobilarcik
Beamline Detectors	<vacant> (leader) Mike Heffner
Target Wheel	Jerry Peterson
Cryogenic Targets	<vacant> (physics) Jim Kilmer (engineering)
MINOS Target	<vacant>
TPC	Ron Soltz Peter Barnes
Magnets	<vacant> (fields) Peter Barnes (installation)
Cerenkov	David Lange
Chambers	Ed Hartouni
TOF	Sanjib Mishra
RICH	<vacant> (leader) Earl Swallow
NCAL	Mike Longo
DAQ	Ron Soltz
Monte Carlo	Rajendran Raja
Installation	Peter Barnes Leon Beverly
Mechanical Engineering	Jim Kilmer
Electrical Engineering	<vacant>
Gas Systems	Terry Tope Del Allspach

Standing Meetings and Conference Calls

- **Installation Meeting Wednesdays 10:30 CST - 1.5 hours**
  - **Focus on installation specific issues**
    ***e.g.*, rack placement and AC power in the worm**
- **System Experts Meeting Thursdays 3:30 CST - 1 hour**
  - **Progress reports circulated by email/web on Wednesday**
  - **Forum to raise current/upcoming issues**
  - **Focus on identifying solution/decision path**
  - **Differs from Installation Mtg:**
    e.g.*, electronics integration in the rack, software, *etc.
    - ***Experts - please call in or arrange a substitute***
- **Access For Both Calls**
  - **Dial In Number: 775-785-1944**
  - **Access Code: 536495**

Major Change to Installation Sequence

- **Original Plan Did Heavy Work ASAP**
  - **Remove Existing Roof**
  - **Install Magnets**
  - **Crane In Other Heavy Parts Onto Cribbing**
    - **CKOV, DC1-3, RICH, NCAL**
  - **Install New Roof Line**
  - **Jack Parts Onto Stands and Tracks Later**
  - ⇒ **Decouples Heavy Installation From Stand Design/ Fab, *etc.***
- **More "Rational" Sequence**
  - **Design and Fab Stands for All Heavy Components**
    - **(same list as above)**
  - **Initiate Installation When**
    - **ALL Tracks Installed**
    - **ALL Stands Fabricated**
  - ⇒ **Simplifies Heavy Installation - Overhead Crane Coverage, No Jacking**
  - ⇒ **But Couples Many Activities - Any One Delays the Whole**

⇒ **Need To Decide Soon - Next 2 Weeks**

Short Term Issues

- **Finalize Geometry**
  - **All (Known) Interferences Resolved**
  - ***Need Performance Validation:***
    - ***Acceptance***
    - ***Momentum Resolution***
    - ***Particle ID Coverage (Especially TOF)***
  - ***Need Fringe Field Limit at RICH PMTs***
- **Finalize Support Stands & Rails Conceptual Designs**
- **Detailed Estimates (Time, $) For Stand Design & Fab**
- **Make Installation Sequence Decision**

Long Term Issues

- **Next Engineering Focus Areas (after stands)**
  - **Gas Systems**
    - **Overview Discussions Yesterday**
    - **Need System Diagrams**
  - **Electronics**
    - **Engineering Issues: Rack Space, Power, Cooling, Protection**
    - **PREP Issues: Equipment Testing**
    - **Other?**
    - **Need System Diagrams, Channel Counts**
  - **Alignment Requirements and Fiducialization**
- **E907–Fermilab MOU**
  - **Post and Circulate Draft Before Next Collaboration Meeting**